## Index of Claims

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|  |           |          |  |

Applicant(s) Application No. 09/893,975

YOON, SUNG-HOE
Art Unit

Wesley D Markham

Examiner

1762

Rejected Allowed

(Through numeral) Cancelled Restricted

Non-Elected Interference

Appeal A 0 Objected

| Cls          | aim      | m Date       |         |                         |   |            | ٦                | Claim      |                         |        |         | Date           |          |          |                     |   | CI                      | aim      | _        |          |          | Da           | ite      |                 | _             | _       |          |         |          |           |               |          |
|--------------|----------|--------------|---------|-------------------------|---|------------|------------------|------------|-------------------------|--------|---------|----------------|----------|----------|---------------------|---|-------------------------|----------|----------|----------|----------|--------------|----------|-----------------|---------------|---------|----------|---------|----------|-----------|---------------|----------|
|              | 1        | 3            | 5       | _                       | Γ.  | <u> </u>   |                  |            |                         | 7      | ı       | آ              |          | 1        | T                   | 7   | T                       | Π        | T        | T        |          |              | -m       |                 |               |         |          |         |          |           |               | 1        |
| - a          | Original | 9129/03      | 711/04  | 1                       | Ì   | {          |                  |            | 1 1                     |        |         | ō              | Original | 1        | - {                 |   | ł                       | 1        | - }      |          |          | Final        | Original | ŀ               |               | •       | -        | 1       | -        | 1         | - }           | 1        |
| Final        | 草        | 12           | 13      | l                       |   | ì          | l                |            | H                       | 1.     |         | Final          | rj       |          | 1                   | }   | 1                       | 1        |          |          |          | 🛅            | 풀        |                 | 1             | 1       | 1        | ]       |          | -         | -             | ]        |
| 1 "          | ō        | ١١           | 1       | l                       | l   | ı          |                  |            | 11                      | ŀ      | ŀ       |                | 0        | 1        | - }                 | ŀ   | 1                       | 1 1      | - }      | 1        | 17       |              | ا د ا    | - }             | - }           | }       | J        |         |          |           | -             |          |
|              | 1        | V            | _       | ⊢                       | ╀╌  | 1          | -                | -          | ┝╌┼╴                    | ┥      | 1       |                | 51       | $\dashv$ | $\dashv$            | $\top$  | +-                      |          |          | +        | 1        |              | 101      | $\neg$          | $\neg \vdash$ | T       | T        | 7       | Т        | Т         | $\neg$        | ٦        |
|              |          | ١.           | -       | ┞─                      | ┝╌  | ╀╌         | -                | -          | ╁╌┼                     | -      | ł       |                | 52       | -        | +                   | +-  | +                       | 1        |          | -        | 1        | <b></b> -    | 102      |                 | 1             | 1       | 1        | ┪       |          | T         | T             | ヿ        |
|              | 3        | H            | 1       | ┝                       | ├-  | ├          | ├—               | -          | ╁╼┼                     | :      | · . ; } |                | 53       | -+       | +                   | +-  | +-                      | Н        | $\dashv$ | +-       | 1        |              | 103      | $\dashv$        | +             | 1       | +        | 7       | 7        | T         | 十             |          |
|              | 3        | H            | _       | <u> </u>                | ├   | <b>├</b> - | <b>├</b> -       | ⊢-         |                         | -      | 1       |                | 54       |          | +                   | +   | ╁                       | +        | -        |          | 1        | $\vdash$     | 104      | -+              | -             | +       | +        | $^{+}$  | +        | 十         | 十             | ヿ        |
|              | 4        | Н            | ~       | 1_                      | ╄   | ↓_         | ļ                | ├-         | $\vdash$                | 4      | . }     |                |          | $\vdash$ | $\rightarrow$       | +-  | -                       | $\vdash$ |          | +        | 1        |              | 105      | $\dashv$        |               |         | +        | +       | +        | 十         | +             | 一        |
| L            | 5        | Н            | _       | 1_                      | ₽-  | ↓_         | ↓_               | <b>├</b> - | ₩                       | -4     |         |                | 55       |          | -+                  |   | +                       | +        | -        | +-       | 1        |              | 106      | -+              | +             | +       | +        | +       | +        | 十         | 十             | ⊣        |
| L            | 8        | 11           | ١.,     | L                       | L   | ↓_         | ↓_               | <u> </u>   | <del>     </del>        | -4     |         |                | 56       | $\vdash$ | +                   | +   | -                       | +        | -+       |          | -        |              | 107      | -+              | +             | +-      | ┰        | +       | +        | +         | +             | ᅥ        |
| L            | 7        | Ц            | ~       | _                       | 1_  | 1_         | ┞-               | L          | l-l                     | 4      |         |                | 57       |          | -+                  |   | +                       | -        |          |          | -        | ├            | 108      | -+              | -+            | +-      | +        | +       | +        | +         | 十             |          |
| L_           | 8        | Ц            | V       | 1_                      | 上   | 上          | <u> </u>         | L          | $\sqcup$                | 4      |         |                | 58       | -        |                     | -   | -                       | ├-       | $\vdash$ |          | - 1      |              | 109      | }               | -+            | +       |          | -+      | $\dashv$ | +         | +             | ㅓ        |
|              | 9        | $\mathbb{N}$ | 1       | 1_                      | L   | 上          | _                | L          | $\sqcup$                | _      |         |                | 59       |          | _                   | 4   | 4-                      | $\vdash$ | -4       |          | -        |              | 109      | -+              |               |         | +        | -+      | -+       | +         | +             | ᅱ        |
|              | 10       | L            | ╽       | L                       | 1_  |            | L                | L          | $\sqcup \downarrow$     | _      | X       |                | 60       | $\sqcup$ |                     | 4   | 4                       | ₩        | $\vdash$ |          | -        | <b>├</b> —   | 110      | -+              | -             | +       | +        | +       | -+       | +         | +             | ᅱ        |
|              | 11       | Ĺ            | L       | L                       | L   | _          | L                | <u></u>    | $\sqcup$                | _      |         |                | 61       | $\sqcup$ | 4                   | 4   | 4                       | 4        | ┝╌┡      | 4        | 4        |              | 111      |                 | +             |         | +        | -       | +        | +         | +             | ᅱ        |
|              | 12       | L            | L       | L                       |   | L          | L                |            |                         | _      |         |                | 62       | $\sqcup$ | _                   | _   | 4                       | ↓_       | 1-1      | 4        | 4        | <b>-</b>     | 112      |                 | +             |         | +        | +       | -        | +         | 4             | -        |
|              | 13       | Ĺ            |         |                         | 1   |            | L                |            |                         |        |         |                | 63       | _        | 4                   | 4   | 4                       | 1_       | $\vdash$ | 4-       | 4        | <u> </u>     | 113      | _               | 4             | +       | +        | -}      | -+       | 4         | 4             | -        |
|              | 14       | 1            |         | Τ.                      |   |            |                  | ┖.         | 1_1                     |        |         |                | 64       | Ш        | _1                  |   | $\perp$                 | 1_       | $\Box$   |          | 1.       | <u> </u>     | 114      | _               |               | 4       | 4        | -       | -+       | 4         | 4             | -1       |
|              | 15       | Γ            | Γ       | Γ                       | $\Gamma$  | $\prod$    | $\perp$          |            | $\Box$                  |        | ]       |                | 65       | $\Box$   | $\dashv$            | $\perp$   | $\perp$                 | 1        | $\sqcup$ | 1        | 1        | <b> </b>     | 115      | $\Box$          | 4             | _       | 4        | 4       | $\dashv$ | 4         | 4             |          |
|              | 16       | T            | T       | Γ                       | 1   | T          | 1                | Γ          | П                       | $\Box$ | . !     |                | 66       |          |                     | 1   |                         | L        | Ш        |          | ] ``     | L_           | 116      |                 | _             | 4       | 4        | _       | _        | 4         | 4             | 4        |
|              | 17       | T            | 7       | Γ                       | T   | T          |                  | Γ          | $\Gamma$                | _7     | . , I   |                | 67       |          | $\Box$              | $oldsymbol{ol}}}}}}}}}}}}}}}$ | $\perp$                 | 1        |          | 1        | 1        | <u>L</u>     | 117      | $\sqcup$        | _             | 1       | 4        | _       | _        | 4         | 4             | _        |
|              | 18       | 1            | 1-      | 1                       | T   | 1          | 1                | T          | $\Box$                  | 7      | 7       |                | 68       |          |                     | Т   | Τ.                      | 7        |          |          | ]        | <u> </u>     | 118      |                 |               | $\perp$ |          |         | _        | _         | _             |          |
| _            | 19       | †            | 1       | T                       | +   | 1          | 1                | $\top$     | T                       |        |         |                | 69       |          |                     | $\top$  | Т                       | Т        | П        |          | ]        |              | 119      |                 |               | $\perp$ |          |         |          |           |               |          |
|              | 20       | +            | +       | +                       | +-  | 1-         | 1                | 1          | 1-1                     | 7      |         |                | 70       |          |                     |   | Т                       |          | $\sqcap$ | $\neg$   | 7        |              | 120      |                 |               | I       | $\Box$   | $\perp$ |          |           |               |          |
| -            | 21       | +            | +       | 1-                      | 1   | +-         | 1                | 1          | 11                      |        | . 7     |                | 71       |          |                     | $\neg$  | $\top$                  |          | $\Box$   | 7        | 7        |              | 121      |                 | $\Box$        | T       | Т        | Ī       | $\neg$   | $\neg$    | П             |          |
| $\vdash$     | 22       | ╁╴           | ╅       | 1-                      | +   | +          | ✝                | +-         | 1-1                     | -1     |         | _              | 72       |          | $\Box$              | _   | _                       | 1        |          |          | 1.       |              | 122      | П               |               |         |          |         |          | $\top$    | ٦             |          |
|              | 23       | +-           | +       | ╁╴                      | 十   | +-         | ╅                | +-         | +                       | 1      |         | <b></b> -      | 73       |          |                     | -   | +                       | +        |          | $\neg$   | 7        |              | 123      |                 |               | T       |          | 7       | $\neg$   | 7         | П             |          |
| -            | 24       | ╁            | +-      | ╁╴                      | +   | +          | +-               | ╅╌         | ++                      |        | è.      | <b></b> -      | 74       | 1        |                     | +   | +                       | +-       | $\Box$   | +        | 1        |              | 124      |                 |               | 7       | $\neg$   | $\neg$  | _        | 7         | $\neg$        |          |
| <del> </del> | 25       | +-           | ┿       | ┿                       | ┿   | +-         | ╁╴               | ┿          | + +                     | ⊣      |         | ├              | 75       | 1        | +                   | +   | +                       | +-       | 1-1      | -        | 1        | -            | 125      | Н               |               | 7       | _        | 7       |          | $\neg$    | $\neg$        |          |
| -            | 26       | ┿            | +       | ╁                       | ┿   |            | ╁╴               | +          | ╁╌┧                     | -      | 1       |                | 76       | +-       | $\vdash$            | -   | 十                       | +-       | 1-1      |          | 1        | -            | 126      | $\vdash \vdash$ | $\neg$        | 7       | 7        | - 1     | 7        | 7         | $\neg$        |          |
| -            | 27       | ╁            | +-      | +-                      | ┽╌  | ╁          | ╁                | ╁┈         | +-1                     | -      |         | <b></b> -      | 77       | ┼        | ┝┤                  | +   | +                       | +-       | ╁╾╂      | +        | 4        | -            | 127      |                 | $\vdash$      | +       | -        | - }     | - 1      | -+        | 7             | _        |
| -            |          | ╁            | +-      | ╀                       | ┰   | +          | +-               | +-         | ╁                       |        | . 1     | <del> </del> - | 78       | ╁        | ┝┤                  | +   | ┰                       | +-       | ╂╼╅      | -        | ┪"       | -            | 128      | -               |               | 7       | 7        | 1       | 7        | 十         | _             | _        |
| <u> </u>     | 28       |              | +       | 4-                      | ┿   | ╁          | ╀                | ┿          | + +                     | -      |         |                | 79       | ╁        | $\vdash$            | +   | +                       | +-       | +-+      | -        | -1:,     | ·-           | 129      | $\vdash$        | $\vdash$      | +       | -        | -1      | -        | _         | $\dashv$      | _        |
|              | 29       | +            | +       | ╀                       | +-  | +          | +-               | +          | ╀╌┤                     | -      | } .     | <del> </del>   |          | +-       | ┝┥                  | +   |                         | +-       | ╂╼╂      |          | - ∵      | :            | 130      | H               | ┝┤            | +       | -        |         | -1       | -+        | -             |          |
| <u> </u>     | 30       |              | +       | ╀                       | +   | +          | +-               | 4-         | ┵                       |        | :<br>:: | <b>}</b>       | 80       | ╁        |                     | $\dashv$  | +                       | +-       | 1-+      | +        | -        | -            | 131      | ⊢               | $\vdash$      | +       |          | {       | ᅱ        | -+        | ~ 1           |          |
| <u> </u>     | 31       | 4            | _       | 1                       | +   | +          | -                | +          | ╁┤                      | _      | 1.      | -              | 81       | ┼-       | ┤┤                  | 4   | +                       | +-       | ╂╼╂      |          | +        | -            | 132      | ├               | ╁┼            | -       | $\dashv$ | -       |          | -+        |               | -        |
| <u></u>      | 32       | 1            | 1       | 4                       | 4   |            | +                | 4          | 4-4                     | _      |         | -              | 82       |          |                     | 4   | +                       | +        | ╁╌┼      | +        | 4        | -            | 132      | -               |               | -       | -1       |         | $\dashv$ |           | $\dashv$      | _        |
| <u></u>      | 33       |              | 1       | 1                       | 4   | +          | +                | $\perp$    | 4-1                     |        |         |                | 83       | ↓_       | $\vdash$            | $\rightarrow$   | 4                       | +-       | 1-1      | +        | 4        | <del>-</del> | 133      | -               | $\vdash$      | -       |          | {       | -4       |           |               | -        |
| <u> </u>     | 34       |              | 1       | 1                       | $\perp$   | 1          | 1                | 1          | 4.4                     |        |         | L_             | 84       | -        | $\vdash \downarrow$ | 4   | 4                       | +        | 1        | 4,       | <b>-</b> | 1-           | 134      | -               |               | -+      | - 4      | -       |          |           |               | <u> </u> |
|              | 35       |              | 4       | 1                       | $\perp$   | _          | 1                | $\perp$    | $\downarrow \downarrow$ |        | .       | <b> </b>       | 85       | 4-       |                     | $\dashv$  | 4                       | 4~       | 1-1      | -+       | 4:       | -            | 135      |                 | $\vdash$      | 4       |          | -4      | -4       |           |               |          |
|              | 36       |              | L       | 1                       | $\perp$   | 1_         | 1                | ┸          | $\perp$                 |        | ि       | 1_             | 86       | _        | Ш                   | $\dashv$  | 4                       | 1.       | 1-1      | $\perp$  | 4        | <u> </u>     | 136      |                 | $\sqcup$      | _       |          | -1      | _        |           |               | ļ.,      |
|              | 37       |              | $\perp$ | Ĺ                       |   |            | L                | Ţ          | $\bot$                  | _      | Į       | 1              | 87       | 1_       | $\sqcup$            |   | 4                       | $\perp$  | 1-1      | 4        | 4 1      | ·            | 137      | 1               | $\sqcup$      | 4       | _        | _       | _        | $\dashv$  | $\dashv$      | <u> </u> |
|              | 38       |              | $\int$  | Ι                       | $oldsymbol{ol}}}}}}}}}}}}}}}$ | $\perp$    | $\perp$          |            |                         | _      | ]       |                | 88       |          |                     |   | $\perp$                 | 1        | 11       | 4        | 4        | _            | 138      | <u> </u>        | $\sqcup$      | _       | _        | _       | _        |           | ┙             | L_       |
|              | 39       | $\Gamma$     | $\int$  | $oldsymbol{\mathbb{I}}$ | $\perp$   | $\perp$    |                  |            |                         | _      |         |                | 89       |          | Ш                   | $\perp$   | $\perp$                 | 1        | $\Box$   | 4        | 4        | _            | 139      | <u> </u>        | $\sqcup$      | _       | _        | _       |          | $\square$ |               | _        |
|              | 40       |              | T       | Ι                       | $\mathbb{J}$  | $\perp$    | I                | $\prod$    | $\Box$                  |        | ]       |                | 90       |          |                     | $\perp$   |                         | L        | ш        | $\perp$  | _        | 4_           | 140      | 1_              | 1.1           |         | _        | $\Box$  | Ш        | Ш         | لـــا         | <u> </u> |
|              | 41       |              | T       | Ι                       | J   | J          | $\mathbf{I}$     | I          |                         |        | ŀ       |                | 91       |          |                     | $\Box$  |                         |          |          | $\perp$  | 1        | 1_           | 141      | <u> </u>        | Ш             |         | _        |         |          |           | <u> </u>      | _        |
| Γ-           | 42       | T            | T       | Τ                       | T   | I          | $\mathbf{I}^{-}$ | $\int$     |                         |        | ] :     |                | 92       | L        |                     | $\Box$  | $\perp \Gamma$          |          | $\Box$   | $\perp$  | _        | L            | 142      | 1               |               | _       |          | _       | _        | Ш         |               | _        |
|              | 43       | T            | T       | T                       | J   | T          | T                | T          |                         |        | ].      |                | 93       |          |                     |   | $\perp$                 |          |          | $\Box$   | _] .     |              | 143      | 1_              | Ш             |         | $\Box$   |         | $\Box$   | Ш         | oxdot         | _        |
|              | 44       |              | $\top$  | T                       | T   | T          | 1                | 7          |                         |        | ]       |                | 94       | L        |                     | $\Box$  | $oldsymbol{\mathbb{I}}$ | $\perp$  |          | $\perp$  |          |              | 144      |                 |               | $\perp$ |          |         |          | Ш         |               | L        |
| -            | 45       |              | $\top$  | 1                       | 7   | 7          | 1                | T          | 77                      |        | 1       |                | 95       | Τ        |                     |   | T                       | Т        |          |          | ]:       | - 7          | 145      |                 |               | [       |          |         |          |           |               |          |
| <b>—</b>     | 46       |              | $\top$  | 1                       | 十   | +          | 1                | 1          | 1                       | _      | 1       |                | 96       |          | П                   | $\Box$  | _                       | $\top$   |          |          | 7,       |              | 146      |                 |               |         |          |         |          |           |               | Ĺ        |
| -            | 47       |              | +       | +                       | 十   | 1          | 1                | 1-         | -                       |        | 1:      |                | 97       | T        | П                   | $\sqcap$  | 7                       | $\top$   | 77       | $\top$   | 7        |              | 147      | 1               | П             |         |          |         |          | П         |               |          |
| -            | 48       |              | +       | +                       | +   | +          | +                | +          | +-                      |        | 1       |                | 98       | 1        | ✝                   |   | 7                       | +        | 17       | 1        | ٦.       |              | 148      | 1               | П             |         |          |         |          | П         |               | Г        |
| -            | 49       |              | +       | +                       | +   | +          | +-               | +          | +                       | Η-     | 1       | +              | 99       | +        | 1                   | 1   | -+                      | +        | 1 1      | $\neg$   | 7        |              | 149      | 1               | $\sqcap$      | $\neg$  |          |         |          | $\sqcap$  | Γ             | Г        |
| -            | 50       | +            | +       | +                       | +   | +          | +                | +          | +                       |        | 1       | <b>†</b>       | 100      |          | 1                   | -   | +                       | 十        | ++       | $\dashv$ | ٦.       | _            | 150      | 1               | $\sqcap$      | $\neg$  | П        |         |          | П         | $\overline{}$ | Γ        |
|              | 1 30     | '.           |         | ㅗ                       |   |            | ㅗ                |            |                         |        | J       | <u> </u>       |          | <u>'</u> | i                   | $\perp$   |                         |          |          |          |          | ·- L         | 1.00     |                 | 11            | _       |          | ш.      | ш        |           |               | ٠        |